IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MASSACHUSETTS

SCANSOFT, INC. Plaintiff, v. ART ADVANCED RECOGNITION TECHNOLOGIES, INC. Defendant.	Civil Action No. 04-10840-PBS

DECLARATION OF ERAN AHARONSON IN SUPPORT OF ART ADVANCED RECOGNITION TECHNOLOGIES, INC.'S MOTION FOR SUMMARY JUDGMENT OF NON-INFRINGEMENT OF U.S. PATENT NO. 6,501,966

I, Eran Aharonson, do hereby depose and say:

1. I am over the age of eighteen and am making this Declaration under oath.

2. I am providing this Declaration on behalf of the defendant ART Advanced Recognition Technologies, Inc. ("ART") in this action, in support of its motion for summary judgment of non-infringement of U.S. Patent No. 6,501,966 ("the '966 patent").

3. I am familiar with the subject matter of this action and have personal knowledge of the facts contained in this Declaration.

4. Until recently, I was the Chief Executive Officer of ART Advanced Recognition Technologies, Inc., and was employed with the Company since 1992. I have previously held the positions in the Company of: Vice President for Research and Development, managing all of the Company's research and development activities, mainly in the fields of speech and handwriting recognition; Vice President for Business Development, where I was responsible for identifying new business directions and promoting new product development; Chief Operating Officer and

President, where I was responsible for the Company's everyday operations, research and development, and sales and marketing.

5. ART is an acknowledged pioneer and market leader in the field of embedded speech and handwriting recognition solutions for mass-market mobile devices. Established in 1990, ART was the first company to successfully introduce speech-based name-dialing for mass-produced cellular handsets. Since then, ART has generated a decade of award-winning software solutions for mobile devices. ART markets a range of proprietary technologies designed for use in cellular handsets, smart-phones, PDAs (Personal Digital Assistants) and other systems.

6. ART's speech recognition technology is an "embedded" solution. ART's speech recognition technology resides entirely in the mobile device, such as a cellular phone or PDA. In particular, ART's speech recognition technology is on the circuit board of the mobile device, and is self-contained in the handset of a cellular phone. ART's speech recognition technology does not rely on any connection to the telephone network, and does not involve any interaction (*e.g.*, sending and/or receiving a command) between the mobile hand-set and the switching office of the telephone network which connects the mobile phone to the land-based telephone system.

7. ART's speech recognition products include the following commercial products: smARTspeak NG™; smARTspeak XG™; smARTspeak XGT™; and smARTcar®.

8. smARTspeak NG™ provides a comprehensive suite of speech recognition features designed to enable fast and easy call initiation and the control of wireless mobile devices. smARTspeak NG is embedded entirely in the mobile device.

9. smARTspeak XG™ is a speaker independent name dialing solution designed for wireless mobile devices. smARTspeak XG is embedded entirely in the mobile device.

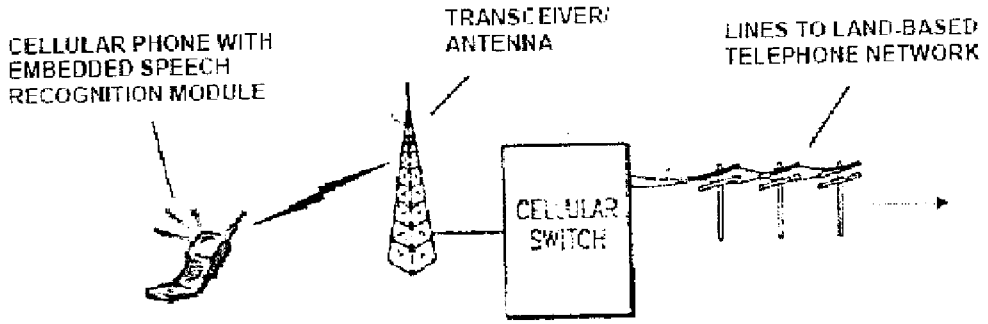
10. smARTspeak XGT™ is ART's latest speaker independent speech interface solution designed for wireless mobile devices. smARTspeak XGT is embedded entirely in the mobile device.

11. smARTcar® provides a combination of both voice recognition and handwriting recognition for moving vehicles. smARTcar is embedded entirely in the mobile device.

12. In general, the way people have been doing telephone-based speech recognition for years is to put a speech recognition module ***in*** the handset of the mobile device. This is often referred to as "embedded" speech recognition. ART's speech recognition products, although state-of-the-art in terms of the actual electronics used, operate functionally the way people have been doing telephone-based speech recognition for years: ART's products place the speech recognition module embedded in a computer chip in the handset of a cellular phone.

13. A graphical representation of the prior art, in which the speech recognition technology is embedded inside a cellular phone, is shown in the following diagram:

PRIOR ART:
SPEECH RECOGNITION MODULE
EMBEDDED INSIDE A CELLULAR TELEPHONE



14. As mentioned above, the way people have been doing telephone-based speech recognition for years is to put the speech recognition module in the handset of the cellular phone. During operation, a person would speak into the cellular phone and the speech recognition

module in the phone would perform its speech recognition functions. A transceiver/antenna would then communicate with a cellular switch at a central location, to transmit and receive the signals to and from the cellular phone. The cellular switch is, in turn, connected to land-based destinations via the normal telephone network.

15. I have reviewed the '966 patent and certain of the prior art references cited on the patent. At least three of the prior art references cited on the '966 patent describe speech recognition systems that operate just as described above with the speech recognition module placed in the handset. The prior art is functionally just like ART's speech recognition products.

16. For example, an article from 1991 entitled "Dialing a Phone by Voice" by Pawate *et al.* describes speech recognition technology embedded within a voice dialer for a cellular car phone. Similarly, an article from 1986 entitled "Voice Recognition in Cellular Mobile Telephones," by Schalk describes speech recognition technology embedded within a mobile cellular device for vehicular use. As yet a further example of the prior art, an operating manual from 1989 entitled "VoiceDial Operating Guide, America's First Speaker Independent Voice Command Systems for Cellular Telephones," describes speech recognition technology embedded within a cellular telephone.

17. In the chart below, I compare the above-mentioned prior art references to ART's speech recognition products in the context of claim 1 of the '966 patent. Although ScanSoft's complaint does not specifically mention any of ART's products by name, for purposes of this Declaration, I consider ART's speech recognition products to include the commercial products discussed above: smARTspeak NG; smARTspeak XG; smARTspeak XGT; and smARTcar.

Claim 1 of the '966 patent (earliest filing date of Apr. 13, 1992)	**"Dialing a Phone by Voice," 1991**	**"Voice Recognition in Cellular Mobile Telephones," 1986**	**"VoiceDial Operating Guide," 1989**	**ART's Speech Recognition Products**
A speech recognition method for a mobile telecommunication system which includes a voice recognizer capable of recognizing commands and characters received from a mobile telecommunication user, the method comprising the steps of:	"One application getting a lot of attention today is a speech recognition voice dialer for cellular car phones." (Pg. 95) "Conventional dialers... require operators to look at a keypad to punch in numbers, a dangerous activity in moving vehicles. The voice dialer recognizes both male and female voices... It can have a vocabulary of 25 or more words, depending on memory size. Surprisingly, all this functionality requires only one digital signal processor (DSP)." (Pg. 95)	"The voice-dialing mobile cellular telephone is one of the most exciting and promising applications of speech recognition in telephony." (Pg. 24) "It is a software-based recognizer that requires a single general purpose microprocessor (Intel 80186) for implementation." (Pg. 27)	"Welcome to Uniden America Corporation's new world of voice command phone operation!Using your cellular telephone with VoiceDial is not only easy, it adds safety, speed and convenience. VoiceDial permits normal phone functions, besides adding voice features as well." (Pg. 1) "You can voice command your phone in a number of ways: Dictate the digits of the phone number you want to dial. Say one of ten descriptive words to dial preprogrammed numbers." (Pg. 1)	Like the prior art, ART's products have speech recognition modules embedded in the handset of cellular phones.
receiving a command from the mobile telecommunication user;	"An algorithm can be loaded that makes the dialer recognize up to 25 words... A grammar is also called a sentence model. The DSP and speech recognition algorithms understand and respond to sentence models..." (Pg. 97)	"The functional operation of the voice unit centers around syntactically structured voice commands from the user, and voice responses from the voice control unit." (Pg. 27)	"The response "Ready" means that VoiceDial is waiting for you to speak a command." (Pg. 3)	Like the prior art, ART's products have speech recognition modules embedded in the handset of cellular phones that receive commands from cellular phone users.

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Claim 1 of the "966 patent (earliest filing date of Apr. 13, 1992)	**"Dialing a Phone by Voice," 1991**	**"Voice Recognition in Cellular Mobile Telephones," 1986**	**"VoiceDial Operating Guide," 1989**	**ART's Speech Recognition Products**
determining whether the command is a first or second command type;	"A typical application uses a grammar definition program built into, or downloaded to, the DSP memory, so either a man or woman can speak to a car telephone and say "Call office" or "Call home."" (Pg. 96) "After the grammar is loaded, the voice dialer recognizes the following sequence of commands spoken in any order; call office, call home, or number (digits)." (Pg. 97)	"To dial phone numbers, the user simply says "dial" followed by a string of digits… Speed-dialing is achieved by simply picking up the handset and saying "speed dial" followed by one of the ten destination descriptors such as "home," "office," "friend," etc." (Pg. 27) See, e.g., Listing of vocabulary words. (Pg. 26) See, e.g., Figure 3. (Pg. 28)	"Dial by Dictating Digits. Say "Phone"… "Start"… Say "Dial."… "Say the phone number, speaking one digit at a time…" (Pg. 4) "Dial by Descriptive Words. VoiceDial can dial numbers associated with any of the ten descriptive words listed below… Say "Call"… "Say one of the words from VoiceDial's descriptive word list: "Home" "Office" "Secretary"…" (Pg. 10)	Like the prior art, ART's products have speech recognition modules embedded in the handset of cellular phones that determine what type of command was sent.
if the command is the first command type, collecting digits representing a telephone number to be dialed received from the mobile telecommunication user; and	"He or she can also state the number to be called, using the words zero through nine for digits or the word "oh" for zero." (Pg. 96)	"To dial phone numbers, the user simply says "dial" followed by a string of digits." (Pg. 27)	"Dial by Dictating Digits. Say "Phone"… "Start"… Say "Dial."… "Say the phone number, speaking one digit at a time…" (Pg. 4)	Like the prior art, ART's products have speech recognition modules embedded in the handset of cellular phones, that if the sent command is the first command type, the embedded module collects digits representing a telephone number to be dialed received from the cellular phone user;

Claim 1 of the '966 patent (earliest filing date of Apr. 13, 1992)	**"Dialing a Phone by Voice," 1991**	**"Voice Recognition in Cellular Mobile Telephones," 1986**	**"VoiceDial Operating Guide," 1989**	**ART's Speech Recognition Products**
if the command is the second command type, determining whether a previously stored telephone number is associated with a keyword received from the mobile telecommunication user.	"The user can also define a repertory name, for example, "Call Harvey."" (Pg. 96)	"Speed-dialing is achieved by simply picking up the handset and saying "speed dial" followed by one of the ten destination descriptors such as "home," "office," "friend," etc." (Pg. 27)	"Dial by Descriptive Words. VoiceDial can dial numbers associated with any of the ten descriptive words listed below... Say "Call".. "Say one of the words from VoiceDial's descriptive word list: "Home" "Office" "Secretary"..." (Pg. 10) "Store Telephone Numbers by Voice – To use VoiceDial's Dial by Descriptive Words... do the following: To store your home telephone number using the descriptive word "Home": Say "Phone".. "Start"... Say "Dial"... "Say your home number, one digit at a time..." (Pg. 8)	Like the prior art, ART's products have speech recognition modules embedded in the handset of cellular phones, that if the sent command is the second command type, the embedded module determines whether a previously stored telephone number is associated with a keyword received from the cellular phone user.

18. Based on the above, ART's speech recognition products, although state-of-the-art in terms of the actual technology used, and although ART's products offer more enhanced services than those described in '966 patent, operate functionally the way the industry has been describing telephone-based speech recognition for years: a speech recognition module is embedded in the hand-set of a cellular phone.

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I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on October 4, 2004.

Signature: _____

Eran Aharonson